

Impact Objectives

- Highlight the role of social science research into AMR
- Increase understanding and awareness of the value of social science research evidence for tackling AMR among scientists and health policy makers
- Create a database and network of social scientists with an interest in antimicrobial resistance (AMR)

Championing antimicrobial resistance social science research

Professor Helen Lambert, Professor of Medical Anthropology from the University of Bristol, discusses the value of social science research evidence for developing effective strategies to tackle antimicrobial resistance effectively



Why is antimicrobial resistance (AMR) such an important topic to address?

AMR was identified by microbiologists

and infectious disease experts as a potential problem for human health around the same time as antibiotics were discovered, but the scale of the problem of drug resistance and its potential for adversely affecting not only human health and wellbeing but also food production and economic development has only recently become clear. High levels of antibiotic resistance have now been identified in many settings and populations and matters are only going to become worse over time, especially as no new classes of antibiotics have been developed in the past 20 years. AMR is a human problem as much as a microbiological one; its determinants and consequences are socially patterned and social science is as important as laboratory research in learning how to tackle it effectively.

What are the main obstacles facing social science researchers' ability to generate research that is directly relevant to clinical, diagnostic and population health?

At first glance, something as technical sounding as 'antimicrobial resistance' does not sound like the sort of problem

that social scientists either would have relevant expertise in, or would have much interest in researching! This needs to be overcome by unpacking what AMR is all about and explaining how, for example, a sociologist who works on organisational culture or a political scientist with expertise in global governance has knowledge and understanding that could be highly relevant for researching AMR. Generating research that is relevant to this global health issue also requires working closely with colleagues in diverse fields to acquire at least a basic understanding of the current state of knowledge within these fields and how problems are conceptualised.


What is the impact of the Economic and Social Research Council (ESRC) AMR Research Champion and how does it contribute to research excellence?

In 2015, recognising the complexity of AMR and the need for a cross-disciplinary approach to AMR-related research, the UK Research Councils (UKRC) decided to launch a unique cross-council funding initiative across all seven research councils. The ESRC, which funds social science research, recognised that social scientists would not necessarily respond to funding calls on AMR, since it was mainly seen as a medical issue. To increase the likelihood of receiving high-quality research proposals they created the

ESRC AMR Research Champion award to engage social scientists. Since being awarded this grant and with a small team, I have run workshops, developed a website, blog and database and advocated social science at numerous meetings. The initiative has built a community of social scientists with interests in AMR, facilitated interdisciplinary networking and highlighted the need for medical and life scientists to work with social scientists.

You have developed a database of social scientists conducting or interested in conducting AMR research. How useful is this to bridging the gap between social and non-social science subjects on AMR?

This was a core task assigned to me by ESRC as AMR Research Champion. The ESRC sees this database as a valuable resource enabling them to identify potential applicants and peer reviewers for funding calls on AMR across the disciplines. Over 300 people registered on our database and we have used it to create cross-disciplinary attendance at our events and disseminate news about funding calls and other activities. As research funders move increasingly towards requiring interdisciplinarity proposals, particularly with regard to global challenges, it is important to be able to identify social and non-social science researchers who want to work together.



Overcoming obstacles to social science research in AMR

The ESRC AMR Research Champion Initiative has successfully been improving understanding of antimicrobial resistance through interdisciplinary social science research

Professor Helen Lambert, Professor of Medical Anthropology, is Economic and Social Research Council (ESRC) AMR Research Champion from the University of Bristol. She is keen to highlight current barriers to developing a wider understanding of the relevance of social science to antimicrobial resistance (AMR): 'There are several key obstacles. One is getting non-social scientists to recognise the contribution that social science perspectives can make to understanding AMR.'

In her role as AMR Champion, she has found that 'a common misconception among scientists is that social science researchers only work on individual level behaviour, so they think psychology is the only social science discipline that is useful for tackling AMR'. To overcome this 'social scientists often need to work hard at translating and presenting their own concepts, language and theories in ways that those without a social science background can easily understand,' observes Lambert. This helps scientists to appreciate the specific perspectives and methods that different social sciences bring and involve them in research design at an early stage.

Lambert recognises that language can be a barrier between researchers in different areas. She adds: 'Actually, I think anthropologists are especially well qualified to act as translators between different disciplines as

their disciplinary orientation involves learning not to take what others say for granted but to interpret what they really mean.' From her experience, Lambert suggests that 'often the best way to overcome miscommunication is simply to point out that others may not be familiar with their scientific language and ask them to explain in simpler terms'.

Addressing institutional barriers to cross-disciplinary research and publishing is also important. Lambert notes that early career researchers in her own discipline of anthropology who have followed the traditional route of publishing a single-author monograph based on their PhD and then procured further funding for a solo anthropological research project are currently more likely to be considered for lectureships than those who have secured a postdoctoral position in a health faculty, undertaken cross-disciplinary applied research or published multi-authored articles in journals outside anthropology. She says that supporting interdisciplinary research requires a sea change within academia more generally, as there are fundamental implications for recruitment, promotion, funding and academic publishing which need addressing by universities, funders and publishers. 'I firmly believe that engagement across disciplines, such as between social sciences and microbiology or epidemiology, can result in work that is both directly relevant and intellectually satisfying for social scientists.'

Key to this project is promotion of collaboration through advocacy, and Lambert reports that 'government bodies tend to have established avenues of communication with certain types of expert and often rely informally on advisory input from specific individuals'. She comments that whilst 'this is an important step; engagement with this relatively new field relies on a small number of individuals who are mostly research active in the field of health psychology. The downside is that by default, this excludes other social science fields such as medical sociology, medical anthropology and social geography that may have important insights to contribute to public health beyond individual behavioural change.'

Lambert suggests that the role of the AMR champion is in part 'to encourage other advocates who can reach the ears of government and public-sector agencies'. The project itself has generated a range of workshops and communications between key stakeholders as well as engagement with early career researchers. In the UK a Parliamentary Advisory Group has formed around AMR and contacting them with succinct information about a project is a good way for researchers to become known to MPs and civil servants.

MEASURING ENGAGEMENT SUCCESS

Evidence from the current project identifies that information recorded in the project



‘All this support has been enormously helpful in spreading the core messages about the crucial role of social science in AMR research’

database has led to lots of great networking and information sharing. Lambert highlights that ‘a geographer who registered interest via our website learned about a research post in a school of veterinary sciences as a result, and is now employed in an interdisciplinary team working on farmers and AMR in livestock.’ She adds ‘another example is a colleague who works in social policy meeting two future collaborators from other universities and disciplines at one of our workshops - that encounter resulted in a successful joint funding proposal to ESRC.’

Lambert admits that it is a difficult initiative to monitor since it is not focused on the usual academic outputs of published peer-reviewed articles. Her group uses a range of indicators, including workshop attendance and evaluation feedback from these events, to gauge their impact. They also examine the proportion of investigators with successfully funded research proposals who registered interest on the website or attended one of the Research Champion workshops. The project has recorded engagement across 75 universities and 35 social science organisations worldwide, recognising 157 separate AMR research projects.

As AMR Social Science Champion, Lambert stresses the importance of what social science can bring to understanding AMR issues. As one example of success, she reports ‘in the UK, research into drivers of high antibiotic prescribing for children with respiratory tract infections in primary care identified the key role played by parent and clinician internal conceptual models of the illness and wider societal constructions of children as vulnerable. Researchers were able to draw on anthropological and sociological theory to develop a more nuanced understanding of the problem which challenged the simplistic assumption that relatively high levels of antibiotic use were due to ignorance.’ Another example that Lambert reports is from research teams

working on AMR in northern Thailand and in China, where both explored the terms relating to ‘antibiotics’ as translated into local languages and the different meanings they had. She suggests that these ‘interdisciplinary research projects are throwing up fascinating findings about the (mis)translation of antibiotics into local terms which are easily understood as they have pre-existing meanings in relation to traditional medicines, but have the effect of misrepresenting what antibiotics are actually for. This demonstrates the vital need to understand how language is deployed when planning public education and awareness initiatives to influence antibiotic use.’

CHAMPIONING AMR SOCIAL RESEARCH

Lambert recognises that initiatives that champion a specific research theme may have a limited timescale. She highlights that ‘from the Research Council’s point of view, the project has done what it wanted by creating a documented community of social scientists who are informed about and interested in bidding for research funding to work on AMR; the 2016 funding call on AMR led by ESRC was highly competitive’.

The funding for the AMR Champion role has now ended, though the website continues to be hosted by the University of Bristol and Lambert will continue to maintain the blog. She will invite contributions from other social science researchers working on AMR, speak at scientific meetings and contribute a social science perspective on AMR for a variety of national and international bodies. This means it will be possible to continue to ‘champion’ social sciences. In the longer term, Lambert would like to see the newly formed UK Research and Innovation (UKRI) that is replacing Research Councils UK (RCUK) in an umbrella role for cross-disciplinary research, take over hosting the resources and tools developed during the AMR Champion award.

Project Insights

FUNDING

- Economic and Social Research Council

ORGANISATIONS

- University of Bristol (Lead Research Organisation)

INSTITUTIONAL AFFILIATIONS OF COLLABORATORS

- Aarhus University
- Arts and Humanities Research Council
- Cardiff University
- University of Copenhagen
- Exeter University
- Leicester University
- University of Liverpool
- London School of Hygiene and Tropical Medicine
- Loughborough University
- Medical Research Council
- Oxford University
- University of Nottingham
- University of Sheffield
- University of Sussex

CONTACT

Professor Helen Lambert
ESRC AMR Research Champion
University of Bristol

T: +44 117 9287238

E: h.lambert@bristol.ac.uk

W: <http://www.bristol.ac.uk/amr-champ/>

PRINCIPAL INVESTIGATOR BIO

Helen Lambert is Professor of Medical Anthropology in the Department of Public Health Sciences, University of Bristol. Her long term work concerns popular therapeutics and medical plurality in India. She has three decades of experience of ethnographic and cross-disciplinary research on global health issues, particularly in Asia, and has been extensively involved in research capacity-building in lower- and middle-income countries. She was the ESRC’s Research Champion for AMR from 2015-2017 and is leading an interdisciplinary research collaboration on Pathways to Antibiotic Use in China with colleagues at Anhui Medical University. <http://www.bristol.ac.uk/social-community-medicine/people/person/helen-s-lambert/overview.html>

